SERVICE MANUAL

TT493

4822 725 50891

marantz®

model TT493

Auto Return Turntable

MARANTZ DESIGN AND SERVICE

Using superior design and selected high grade components, MARANTZ company has created the ultimate in stereo sound.
Only **original MARANTZ parts** can insure that your MARANTZ product will continue to perform to the specifications for which it is famous.

Parts for your MARANTZ equipment are generally available to our National Marantz Subsidiary or Agent.

MARANTZ INTERNATIONAL
Vestdijk 9
5600 MD Eindhoven
The Netherlands
Phone: +31/40.758290
Telefax: +31/40.75.82.99
Telex: 35000 PHTC NL routing IND NLMTFAT

ORDERING PARTS:

Parts can be ordered either by mail or by telex. In both cases, correct part number has to be specified.
The following information must be supplied to eliminate delays in processing your order:

1. Complete address
2. Complete part numbers and quantities required
3. Description of parts
4. Model number for which part is required
5. Way of shipment
6. Signature: any order form or telex must be signed otherwise such part order will be considered as null and void.

PARTS ORDERING

Parts may be ordered at the following addresses:

AUSTRIA
HORNYPHON
Vertriebsgesellschaft GmbH
Wienerbergstrasse 1
A 1101 Wien
Austria
Telex: 132.332

BELGIUM
SVD DIVISION MARANTZ
Industrialaan 1
1720 Groot-Bijgaarden
Belgium
Telex: 24466

CHILE
MARANTZ
DIVISION OF PHILIPS S.A.
AV. Santa Maria, 0760
Casilla 2687
Santiago
Telex: 240.239

DENMARK
MARANTZ
DIVISION OF PHILIPS
SERVICE A/S
Prags Boulevard 80
Postbox 1919
DK-2300 København S
Denmark
Telex: 31201

FINLAND
MARANTZ
DIVISION OF OY PHILIPS Ab
Kaivokatu 8
00100 Helsinki
Finland
Telex: 124811

FRANCE
MARANTZ FRANCE
4 Rue Bernard Palissy
92600 Asnières
France
Telex: 611651

GERMANY
MARANTZ GERMANY GmbH
Max-Planck-Strasse 22
6072 Dreieich 1
Germany
Telex: 529821

THE NETHERLANDS
Elpro Marantz
Wint Hontlaan 28
3526 KV Utrecht
The Netherlands
Telex: 4748

NORWAY
MARANTZ
DIVISION OF PHILIPS A/S
Sandstuveien 40
0680 Oslo 6
Norway
Telex: 72640

GREAT BRITAIN
MARANTZ AUDIO U.K. Ltd
Unit 15/16
Saxon Way Industrial Estate
Moor Lane
Harmondsworth UB7 OLW
Great Britain
Telex: 935196

GREECE
SHERTON ELECTRONICS S.A.
P.O.Box 21025
Hippocratus Street 188
Athens 11471
Greece
Telex: 216.795

JAPAN
MARANTZ JAPAN, Inc.
35-1, 7-chome, Sagamiono
Sagamihara-shi, Kanagawa
Japan

KUWAIT
AL ALAMIAH ELECTRONICS
Ussama Building
Fahd al Saleem Street
P.O.Box 23781
Safat-Kuwait
Telex: 22694

ITALY
MARANTZ ITALIANA S.P.A.
Via Chiese, 74
20126 Milano
Italy

SAUDI ARABIA
AL ALAMIAH ELECTRONICS
P.O.Box 5954
University Street
Riyadh 11432
Saudi Arabia
Telex: 401530

SOUTH AFRICA
MARANTZ
DIVISION OF PHILIPS S.A.
Main Road Martindale
P.O. Box. 58088
Newville 21114
South Africa

SPAIN
PHONO S.A.
Ignacio Iglesias 10
Badalona (Barcelona)
Spain
Telex: 59355

SWEDEN
MARANTZ
DIVISION OF PHILIPS
Försäljning AB
Tegeluddsvägen 1
S-115 84 Stockholm
Sweden
Telex: 14060

SWITZERLAND
DYNAVOX ELECTRONICS
Route de Villars 105
1701 Fribourg
Switzerland
Telex: 942377

TURKEY
DOGRUOL Ltd.
I.M.C.
6 Blok N°6310
Unkapani
Istanbul
Turkey
Telex: 22085

MALTA
CACHIA & GALEA
Republic Street, 68D
Valetta
Telex: 1682

PORTUGAL
MARANTZ
Divisao philips S.A. service
Outurela-carnaxide
2795 LinDA-A-VELHA
Telex: 43906

All of the above locations are fully equipped to take care of your total service needs. Because various countries have differing configuration requirements, it is necessary that you contact the service facility in your particular country. In the event that there is no service location listed for your country, please, contact the nearest facility for the necessary assistance.

In case of difficulties, do not hesitate to contact the Technical Department at abovementioned address.

SPECIFICATIONS (Limit)

TURNTABLE

Motor	DC Servo motor
Speed	33-1/3 and 45 r.p.m.
Wow & Flutter	±0.15 % (WRMS)
Rumble	57 dB DIN-B
Turntable platter	296 mm aluminum alloy die-cast

TONEARM

Effective length	195 mm
Usable cartridge	CT493

CARTRIDGE

Type	0.6 mil stylus Moving Magnet type
Frequency response	20-20,000 Hz
Output voltage	1.7~3.4mV at 1kHz 3.54 cm/sec.
Channel balance	Within 3 dB at 1kHz
Channel separation	More than 16 dB at 1kH
Load resistance	47 KΩ

OPERATION

	Automatic return, automatic shut off, stop
Cueing	Oil-damped

GENERAL

Power consumption	1.5 watts
Dimensions	360(w) × 102(h) × 350(d) mm
Weight	2.6 kg(net)

NOTE: Nominal Specs represent the design specs; all units should be able to approximate these-some will exceed and some may drop slightly below these specs. Limit Specs represent the absolute worst condition which still might be considered acceptable; in no case should a unit perform to less than within any Limit Spec.

Lubrication of the mechanism is not required. However, whenever a unit is brought in for adjustment or repair, always use good common sense ... clean any dust or dirt from mechanical parts and if moving parts do seem to bind, check for dirt. If necessary, add a very fine film of light-weight specially formulated lubricant.

Specifications and appearance are subject to change for modification without notice.

MODEL TT493 AUTO RETURN TURNTABLE

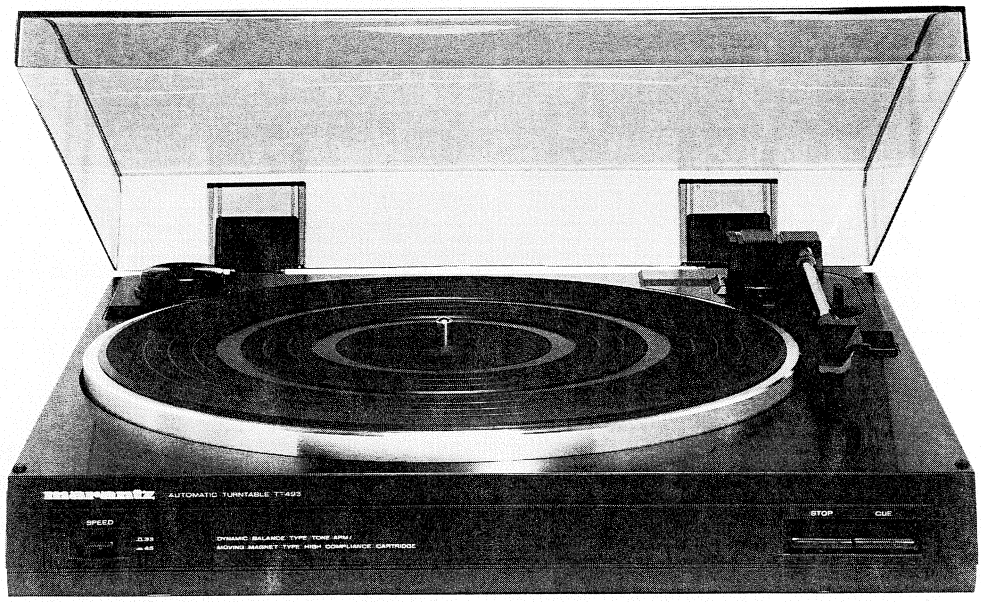
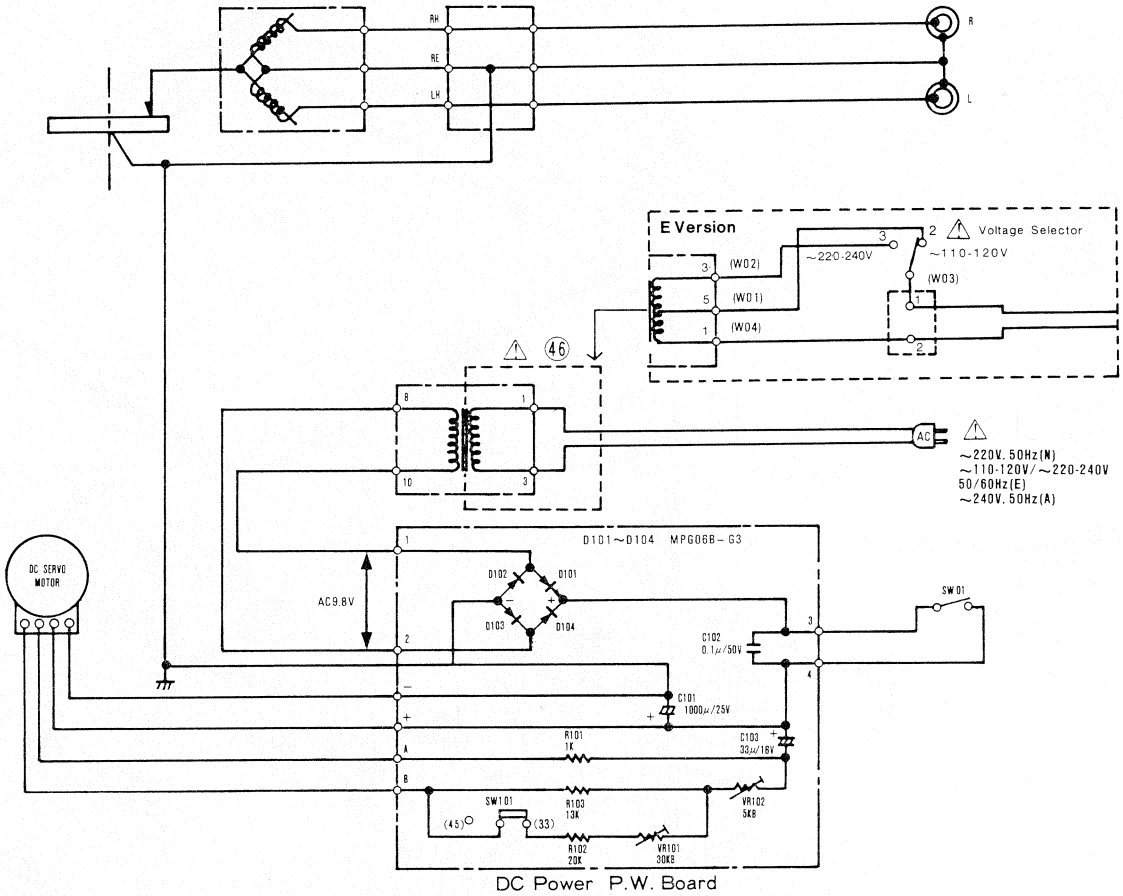


TABLE OF CONTENTS

	Page
1. SCHEMATIC DIAGRAM	4
2. PARTS LOCATIONS	4
3. EXPLODED VIEW	5
4. PARTS LIST	6
5. ADJUSTMENTS	7
6. DISASEMBLY INSTRUCTIONS	7

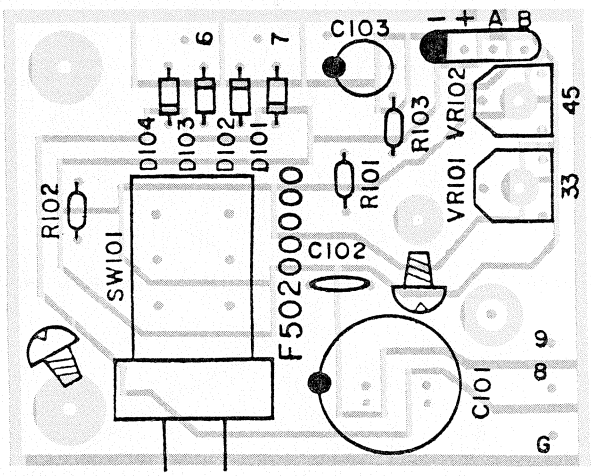
1. SCHEMATIC DIAGRAM



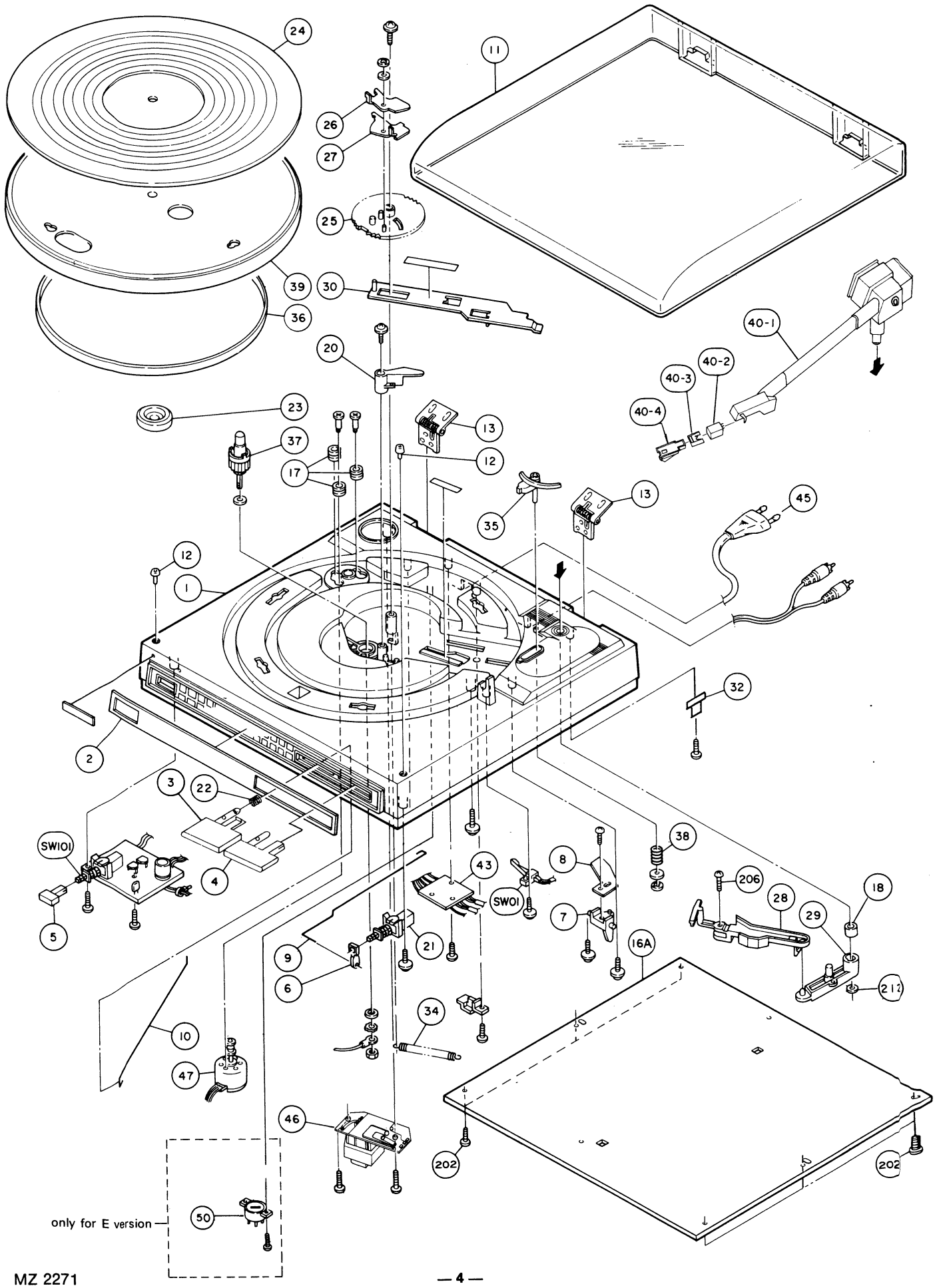
Components and wiring are subject to change for modification without notice.

To service personnel
Make sure that only replacement parts recommended by the manufacturer should be used when the parts marked "⚠" in schematic diagram are exchanged.
Never fail to make leakage-current or resistance measurements before returning the appliance to the customer so as to make sure that exposed parts are acceptably insulated from the supply circuit.

2. PARTS LOCATIONS



3. EXPLODED VIEW



4. PARTS LIST

N: for Europe
E: for Europe
A: for Australia

REF. DESIG.	PART NO.	DESCRIPTION
1	4822 444 10152	Cabinet
2	4822 450 61477	Window, Front
3	4822 410 26568	Button, Stop
4	4822 410 26569	Button, Cue
5	4822 410 60416	Button, Speed
6	4822 535 70979	Spacer
7	4822 403 40263	Arm, Cue
8	4822 402 50256	Lever, Cue
9	4822 535 92495	Rod, Cue
10	4822 535 92496	Rod, Stop
11	4822 444 60557	Dust Cover
12	4822 462 71515	Buffer, Dust Cover
13	4822 417 11007	Hinge Ass'y
17	4822 466 61313	Cushion, Motor
18	4822 462 41492	Cushion, Bracket
20	4822 403 10274	Arm, Stop
21	4822 276 11637	Push Switch
22	4822 492 42254	Spring
23	4822 528 90687	Rec. Adaptor
24	4822 466 50206	Sheet, Turntable
25	4822 522 32296	Gear
26	4822 402 61084	Cam
27	4822 402 61085	Cam
28	4822 402 61171	Arm, Return
29	4822 402 61173	Bracket, Pick up
30	4822 402 61206	Lever Ass'y
32	4822 532 52156	Spacer, Pick up
34	4822 492 42255	Spring, Lever Ass'y
35	4822 402 61172	Arm, Lifter
36	4822 358 30758	Belt, Turntable
37	4822 535 92494	Shaft, Turntable
38	4822 251 70388	Spring, Arm Lifter
39	4822 528 10697	Turntable
40-1	4822 251 70316	Tonearm
40-2	4822 251 11019	Cartrige, CT493
40-3	4822 251 11021	Stylus, CTS493
40-4	4822 530 70532	Retainer, Stylus
		DC POWER CIRCUIT BOARD
SW101	4822 276 12381	Push Switch
D101	4822 130 81722	Diode, MPG06B-G3
D102	4822 130 81722	Diode, MPG06B-G3
D103	4822 130 81722	Diode, MPG06B-G3
D104	4822 130 81722	Diode, MPG06B-G3
VR101	4822 100 11558	30KΩ Trimming
VR102	4822 100 11559	5KΩ Trimming
44	4822 321 23689	Connective Cord

REF. DESIG.	PART NO.	DESCRIPTION	
⚠ 46	4822 146 21472	Power Transformer	N, A
⚠ 46	4822 146 21468	Power Transformer	E
47	4822 361 21101	Phono Motor	
SW01	4822 276 12379	Mini Switch	
⚠50	4822 266 30212	Voltage Selector	E
160	4822 736 20445	User's Manual	
212	4822 532 52155	Washer	

To service personnel
Make sure that only replacement parts recommended by the manufacturer should be used when the parts marked "⚠" in schematic diagram are exchanged.
Never fail to make leakage-current or resistance measurements before returning the appliance to the customer so as to make sure that exposed parts are acceptably insulated from the supply circuit.

5. ADJUSTMENTS

(A) AUTO-RETURN

1. Set the Tonearm (40-1) at the cueing up position.
2. By turning the Screw (206), adjust the Arm (28) so that the Cam (26) is hooked by the Shaft (37) when the stylus is at the position R-61.5~62mm from the center of the Shaft (37) .
3. Check the Tonearm (40-1) returns after music Play.

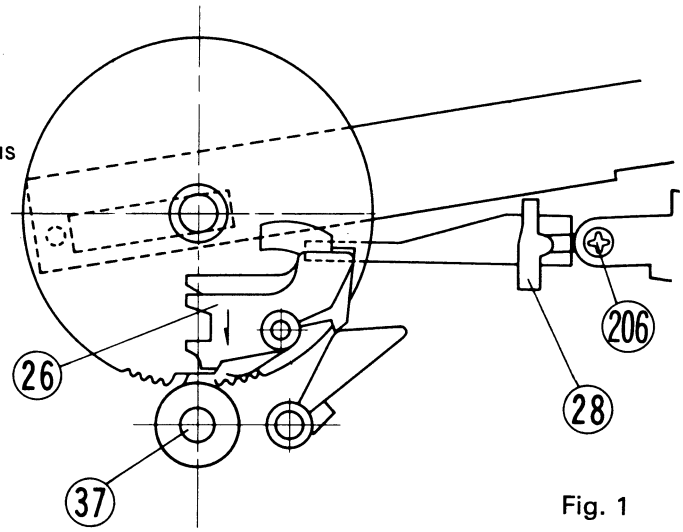


Fig. 1

(B) ROTATION SPEED

1. Select "45" rpm by the SPEED Button (5).
2. Adjust speed by turning the Trimming Resistor(VR102) through the hole (A) on the Bottom Ass'y (16A).
3. Select "33" rpm by the SPEED Button (5).
4. Adjust speed by turning Trimming Resistor (VR101) through the hole (B) on the Bottom Ass'y (16A).

NOTE: Adjust for "45" rpm first. and then "33" rpm next.

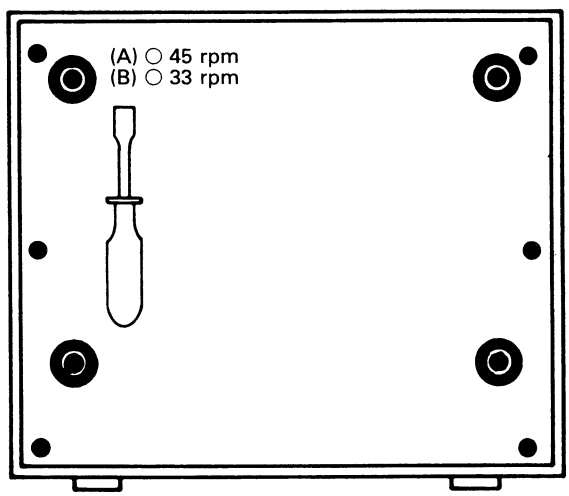


Fig. 2

6. DISASSEMBLY INSTRUCTIONS

(A) Remove the Dust Cover (11) and fix the Tonearm (40-1) to the arm rest.
(B) Remove the Turntable Sheet (24), and the Belt (36) from the Pulley. Then remove the Turntable Platter (39).
(C) Remove the Six Screws (202) on the Bottom Ass'y (16A), then remove the Bottom Ass'y (16A).

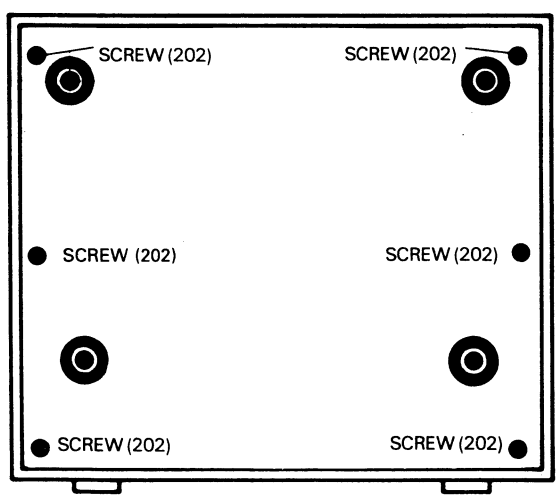


Fig. 3